

**DEPARTMENT OF TRANSPORTATION****DIVISION OF ENGINEERING SERVICES**

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch  
690 Walnut Ave.St. 150  
Vallejo, CA 94592-1133  
(707) 649-5453  
(707) 649-5493

Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.15**SOURCE INSPECTION REPORT****Resident Engineer:**Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** SIR-001429**Date Inspected:** 27-May-2009**Project Name:** SAS Superstructure**OSM Arrival Time:** 1900**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 700**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Changxing Dao, Shanghai**Quality Control Contact:** William (Bill) Oak**Quality Control Present:** Yes No**Material transfer:** Yes No N/A**Sampled Items:** Yes No N/A**Stock Transfer:** Yes No N/A**OK to Cut:** Yes No N/A**Rebar Test Witness:** Yes No N/A**Delayed/Cancelled:** Yes No N/A**Other:** Coatings Inspection**Bridge No:** 34-0006**Component:** OBG 1AAW, OBG 1AAE, East Tower Lift #**Bid Item:** 77, 78, 79**Lot No:** B265**Summary of Items Observed:**

On this date Caltrans Office of Structural Materials (OSM) Quality Assurance (QA) NACE III coating inspector, Mr. James Lumley arrived on site at the Zhenhua Port Machinery Company (ZPMC) facility at Changxing Island in Shanghai, China. The purpose of the coating inspections are to monitor the surface preparation and coating applications for the SAS Bay Bridge project. This QA NACE III coating inspector observed the following:

**OBG 1AAW**

Mud cracking was observed on the exterior surfaces previously over coated with Interfine 979 on 5-26-09.

Complete removal of applied coatings by abrasive blasting to base metal as directed by Peng ZiLi of International Protective Coatings commenced.

**Miscellaneous Metal**

Base metal surfaces of suspender brackets cable tray assemblies, catwalk channel iron, and splice plates were inspected after abrasive blasting, numerous fabrication defects were noted and grinding required followed by re-blasting and application of Interzinc 22.

**OBG 1AAE**

Interzinc 22 coated surfaces were inspected and dry film thickness readings were taken. Dry film thickness ranged from 200-425um on exterior surfaces not in contact with concrete. ZPMC opted to remove all applied coating to base metal and re-apply Interzinc 22, repairs pending. Internal re-blasted base metal surfaces were re-abrasive blasted to an SSPC SP-10 condition and Interzinc 22 applied, this section was previously rejected by ABF QA Bill Oak for excess dry film thickness and excessive runs sags, and curtains as well as contaminants within coating film ie: spent abrasive.

**OBG 2AE& 2AW Cross Beam**

Bottom plate Interzinc 22 coated surfaces received "mist" coat of Interfine 979 this is a repair area, edges were

---

## SOURCE INSPECTION REPORT

( Continued Page 2 of 2 )

---

feathered followed by SP-1 of perimeter of repair area prior to application.

East Tower Lift #1

Base metal surfaces of the interior from 18M diaphragm to tower base were abrasive blasted, surfaces of base metal require grinding of edges of burrs, fins, sharp edges, and gouges in base metal.

OBG 3AE & 3BE

ZPMC abrasive blasted to base metal faying surfaces and applied Interzinc 22 to bikeway bracket contact surfaces which were covered with overspray of Interfine 979 due to negligence and failure to protect from overspray damage in adjacent work area. This work was directed by ABF QA Bill Oak. Profile amplitude was 74-84um, and five locations were amended.

OBG 4AE & 4BE

Interfine 979 was applied to exterior surfaces prior to completion of fabrication. ZPMC performed this work despite protests and directives from ABF QA Bill Oak not to do so. International Protective Coatings technical service representative demonstrated use of wet film gage during in process application and trained applicators in the use of said instrument as well as informed of desired wet film to apply and desired spray pump operating pressure.

Note: All inspections were performed jointly with ZPMC & ABF QA/QC representatives and Caltrans QA Lumley, International Protective Coatings technical service representatives Peng ZiLi and Alpha Chen also were in attendance.

### Summary of Conversations:

International Protective Coatings Peng ZiLi and ABF QA Bill Oak directed ZPMC to remove and replace the coated surfaces of OBG 1AAW due to mud cracking and excess DFT (dry film thickness) which "mist" coat of Interfine 979 was applied.

### Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang. (858) 699-9549, who represents the Office of Structural Materials for your project.

---

<b>Inspected By:</b>	Lumley,James	Quality Assurance Inspector
<b>Reviewed By:</b>	Carreon,Albert	QA Reviewer

---